

# YOUR POND

## *A Public Health Responsibility*

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### How Ponds Affect Health:

A pond is a public health responsibility because if it is not properly located, designed, constructed and maintained, it would probably become a breeding place for large numbers of mosquitoes. These insects transmit several human diseases, including malaria, yellow fever, dengue, filariasis and some forms of encephalitis.

The North American yellow fever mosquito breeds only in artificial containers, so for that reason no hazard, as far as this disease is concerned, would be created by an improperly built pond, and it is not believed that conditions favorable to the spread of dengue and filariasis would occur as these diseases have not been known to be transmitted in North Carolina.

Malaria, which in past years has been very prevalent in North Carolina, is transmitted by a mosquito which breeds in abundance in poorly-maintained ponds that contain vegetation and floatage. Several types of encephalitis are of increasing public health importance due to their seriousness and to the fact that they are spreading to many areas in which they have not formerly occurred. Artificial ponds serve as breeding places for mosquitoes which carry this disease. With conditions favorable to its spread, it could become a public health problem of the highest magnitude in North Carolina.

Equine encephalomyelitis, a disease highly fatal to horses, and fowl pox, a disease common to poultry, as well

as several other animal diseases, are carried by mosquitoes.

Aside from their roles as transmitters of disease, mosquitoes have very decided adverse effects on the well-being of mankind. The presence of hordes of these insects renders life miserable and causes drastic reductions in property values. They influence the mental as well as physical well-being of people. Some individuals can tolerate large numbers of mosquito bites without obvious ill effects, while others manifest reactions based on varying degrees of tolerance. Some suffer extreme annoyance from only a few bites. With many people, in addition to swelling and itching, mosquito bites result in the formation of pustules which persist for long periods, bringing on nervousness, irritation and loss of sleep.

There is only one known natural method by which malaria can be transmitted from one person to another—through the bite of an anopheline mosquito. In North Carolina only one species, the *Anopheles quadrimaculatus*, can carry this disease. As the malaria mosquito is not able to pass the infection from mother to offspring, the only method by which she can become infected is by taking a blood meal from a person suffering from the disease. If a community is free of malaria, the mosquitoes will not become infected, but if an infected person should move into the community or merely stay overnight and is bitten by a malaria mosquito, this